

REMARKS

Applicant has reviewed and considered the Office Action mailed on November 29, 2004, and the references cited therewith.

Claims 1, 10, 14-16, 22, 25, and 26 are amended, claims 11-13 and 24 are canceled, and no claims are added; as a result, claims 1-10, 14-23, and 25-30 are now pending in this application.

§102 Rejection of the Claims

Claims 1-6, 10, 11, 13-17 and 20-25 were rejected under 35 USC § 102(e) as being anticipated by Levin et al. (U.S. Patent No. 5,955,910). Applicants respectfully traverse this rejection.

The Federal Circuit has stated that “[a]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.” See Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542 220 USPQ 193 (Fed. Cir. 1983)).

The office action alleges that Levin discloses a “sleep transistor or regulator transistor” at (124, figure 6), and “a plurality of error amplifier circuits” at figure 2. Applicants respectfully submit that transistor 124 of Levin is not a “sleep transistor or regulator transistor” as alleged, and also respectfully submit that Levin does not disclose each and every element of the claimed invention, arranged as in the claim, as required by the Federal Circuit.

Levin repeatedly refers to transistor 124 as a “sleep transistor” (col. 17, l. 65; col. 18, ll. 4,5), and describes the operation of transistor 124 as a “sleep switch” (col. 17, l. 65). Further, Levin states that “in normal operation, the sleep transistor 124 has no impact on the circuit” (col. 18, ll. 27,28). Applicants can find no mention in Levin of transistor 124 being used as a regulator. Accordingly, applicants respectfully submit that transistor 124 is not a “sleep transistor or regulator transistor” as alleged in the office action.

Referring now to the alleged anticipation of independent claims 1, 10, and 22, applicants respectfully submit that Levin does not disclose, teach, or suggest “a control circuit to utilize the

transistor as a regulator or a sleep transistor" as originally presented in claim 1, "a sleep transistor ... coupled to provide power supply regulation" as originally presented in claim 10, or "performing power supply regulation using a sleep transistor" as originally presented in claim 22.

Referring now to claim 2, applicants respectfully submit that Levin does not disclose, nor does the office action allege that Levin discloses, "an error amplifier to influence the operation of the transistor" as recited in claim 2. Figure 2 of Levin may show "a plurality of error amplifier circuits" as stated in the office action, but they are not shown with transistor 124, nor is there any discussion of the error amplifiers influencing the operation of the transistor.

Referring now to claims 3-6, applicants respectfully submit that Levin does not disclose, nor does the office action allege that Levin discloses, "a plurality of control loops to influence operation of the transistor as a regulator" as recited in claim 3.

Referring now to claim 11 as originally presented, applicants respectfully submit that Levin does not disclose, nor does the office action allege that Levin discloses, "an error amplifier coupled to the sleep transistor" as recited in claim 11 as filed. The subject matter of claim 11 has been incorporated in claim 10, and claim 11 has been canceled. Claim 13 has also been canceled.

Referring now to claims 14-17, applicants respectfully submit that Levin does not disclose, nor does the office action allege that Levin discloses, "a first control loop," "a second control loop," "a sensing transistor," or "a bias transistor."

Referring now to claims 20 and 21, applicants respectfully submit that Levin does not disclose, nor does the office action allege that Levin discloses "the load circuit is in a first integrated circuit die," "the sleep transistor is in a second integrated circuit die," or "the first integrated circuit die is mounted on top of the second integrated circuit die."

Referring now to claim 24 as originally presented, applicants respectfully submit that Levin does not disclose, nor does the office action allege that Levin discloses, "sensing a voltage and influencing operation of the sleep transistor with an amplifier in a first control loop" as recited in claim 24 as filed. The subject matter of claim 24 has been incorporated in claim 22, and claim 24 has been canceled.

Referring now to claim 25 as originally presented, applicants respectfully submit that Levin does not disclose, nor does the office action allege that Levin discloses, “sensing the voltage and influencing the operation of the sleep transistor in a second control loop.”

Accordingly, because Levin does not disclose each and every claim element arranged as in the claims, applicants respectfully submit that the rejection under 35 USC § 102(e) as being anticipated by Levin should be withdrawn.

The above traversal notwithstanding, applicants’ representative, Dana LeMoine, in a telephone interview with Examiner Bao Vu on 2/4/05, agreed to amend independent claims 1, 10, and 22 to provide more clarity. These amendments have not been made for reasons of patentability, as applicants believe that the independent claims as originally presented define over the references of record.

Claims 1, 7, 10, 13, 22 and 23 were rejected under 35 USC § 102(e) as being anticipated by Tschanz et al. (U.S. Patent No. 6,744,301). Applicants respectfully traverse this rejection. The rejection consists solely of a statement that “Tschanz discloses a control circuit (220), a first (236) and second (210) sleep transistors.” Applicants agree that Tschanz discloses a control circuit and sleep transistors; however, applicants do not believe that Tschanz discloses the invention as claimed.

Tschanz discloses a sleep controller 220 to provide “a predetermined sleep transistor control signal” to sleep transistors 202 and 210. (col. 3, ll. 43-46). Tschanz provides no disclosure relating to the use of either sleep transistor 202 or 210 as a regulator.

Referring now to the alleged anticipation of independent claims 1, 10, and 22, applicants respectfully submit that Tschanz does not disclose, teach, or suggest “a control circuit to utilize the transistor as a regulator or a sleep transistor” as originally presented in claim 1, “a sleep transistor ... coupled to provide power supply regulation” as originally presented in claim 10, or “performing power supply regulation using a sleep transistor” as originally presented in claim 22.

Referring now to claim 7, applicants respectfully submit that Tschanz does not disclose, nor does the office action allege that Tschanz discloses, “wherein the control circuit is adapted to utilize the second transistor as a regulator or a sleep transistor” as recited in claim 7.

Claim 13 has been canceled, rendering this rejection moot with respect to that claim.

Accordingly, because Tschanz does not disclose each and every claim element arranged as in the claims, applicants respectfully submit that the rejection under 35 USC § 102(e) as being anticipated by Tschanz should be withdrawn.

The above traversal notwithstanding, applicants' representative, Dana LeMoine, in a telephone interview with Examiner Bao Vu on 2/4/05, agreed to amend independent claims 1, 10, and 22 to provide more clarity. These amendments have not been made for reasons of patentability, as applicants believe that the independent claims as originally presented define over the references of record.

Claims 1, 8, 9, 10, 18, 19, 22, 23 and 26 were rejected under 35 USC § 102(b) as being anticipated by Tanizaki (U.S. Patent No. 6,384,674). Applicants respectfully traverse this rejection. The rejection consists solely of a statement that "Tanizaki discloses sleep transistors utilizing a memory circuit and memory cell arrays. See figure 1."

Similar to the arguments presented above, applicants respectfully submit that Tanizaki does not disclose "a control circuit to utilize the transistor as a regulator or a sleep transistor" as recited in independent claim 1, nor "wherein the sleep transistor is coupled to provide power supply regulation" as recited in independent claim 10, nor "performing power supply regulation using a sleep transistor" as recited in independent claim 22, nor "the sleep transistor to provide power supply regulation" as recited in independent claim 26.

Accordingly, because Tanizaki does not disclose each and every claim element arranged as in the claims, applicants respectfully submit that the rejection under 35 USC § 102(b) as being anticipated by Tanizaki should be withdrawn.

The above traversal notwithstanding, applicants' representative, Dana LeMoine, in a telephone interview with Examiner Bao Vu on 2/4/05, agreed to amend independent claims 1, 10, 22, and 26 to provide more clarity. These amendments have not been made for reasons of patentability, as applicants believe that the independent claims as originally presented define over the references of record.

§103 Rejection of the Claims

Claims 12 and 27-30 were rejected under 35 USC § 103(a) as being unpatentable over Levin et al. (U.S. Patent No. 5,955,910) in view of Tanizaki (U.S. Patent No. 6,384,674) and further in view of Keshavarzi et al. (U.S. Patent No. 6,765,414).

For the purposes of a rejection under 35 USC § 103(a), Keshavarzi only qualifies as prior art under 35 USC § 102(e). The instant application and the Keshavarzi patent were, at the time the invention of this application was made, owned by Intel Corporation, the assignee of both the instant application and the Keshavarzi patent. Accordingly, applicants respectfully submit that Keshavarzi is not available as a reference under 35 USC § 103(a) and respectfully request that this rejection be withdrawn.

Interview Summary

Applicants' representative Dana LeMoine conducted a telephone interview with Examiner Bao Q. Vu on February 4, 2005. Applicant's representative records the interview as follows:

- (A) No exhibits were shown, nor any demonstration conducted.
- (B) Claims 1-30 were discussed.
- (C) The Levin reference was discussed.
- (D) Applicant agreed to amend the independent claims to provide more clarity.
- (E) Applicants' representative presented the argument that none of the references show a transistor used as both a sleep transistor and a regulator.
- (F) The Office Action mailed 11/29/04 was discussed.
- (G) Applicant agreed to amend the independent claims to provide more clarity.

Reservation of Rights

Applicants do not admit that references cited under 35 USC §§ 102(a), 102(e), 103/102(a), or 103/102(e) are prior art, and reserve the right to swear behind them at a later date. Arguments presented to distinguish such references should not be construed as admissions that the references are prior art.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (952-473-8800) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-2359.

Respectfully submitted,

PETER HAZUCHA ET AL.

By their Representatives,

Customer Number: 45445
Phone Number: (952) 473-8800

Date 2 - 9 - 05

By Dana B. LeMoine
Dana B. LeMoine
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O.Box 1450, Alexandria, VA 22313-1450, on this 9 day of February, 2005.

Jane E. Sagers

Name

Jane E. Sagers
Signature

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/673,822

Filing Date: September 29, 2003

Title: REGULATED SLEEP TRANSISTOR APPARATUS, METHOD, AND SYSTEM

Assignee: Intel Corporation

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Dkt: 80107.040US1

IN THE DRAWINGS

The drawings were objected to because of the informal nature of the drawings.

Corrected drawings are supplied herewith.